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7 May 2021

Ms. Katrina Higgins-Coltrain  
Task Order Monitor  
U.S. Environmental Protection Agency (EPA)  
1201 Elm Street, Suite 500, SEDRL  
Dallas, Texas 75270-2102

RE: Responses to Comments on the Soil Feasibility Study Report, Revision 01  
Wilcox Oil Company Superfund Site  
Remedial Investigation/Feasibility Study  
Remedial Action Contract 2  
Contract: EP-W-06-004  
Task Order: 0128-RICO-06GG

Dear Ms. Higgins-Coltrain:

EA Engineering, Science, and Technology, Inc., PBC (EA) has prepared the following responses to comments on the Soil Feasibility Study Report, Revision 01. Comments from EPA were received on 27 April 2021.

**EPA Comments Received via Email on 27 April 2021**

1. *Many of these edits come directly from previous discussion and email communications on potential RAOs, potential future land use assumptions, and potential PRGs. Although significant edits are made to the latter portion of Section 2 and Section 4, the text needs a thorough and detailed review for accuracy and any errors, specifically the risk summary.*

**EA Response:** The text has been reviewed and any errors found have been corrected.

2. *There are many errors that should have been caught during 'senior review'. Based on the revision and the comments being provided here, more effort related to review and the production of a complete document is needed.*

**EA Response:** The text has been reviewed and any errors found have been corrected.

3. *There is a volume comparisons between residential and residential/industrial. Ultimately, the volume is minimal so the approach is to address the site as residential.*

**EA Response:** The following text has been added to address this comment:

“As noted in Section 4.5, the difference in the volume of soil addressed under a residential scenario versus a commercial/industrial scenario for the Wilcox Process Area is minimal and estimated at approximately 4,275 cubic yards. Therefore, the lead PRG of 200 mg/kg (residential use) at a target blood lead level of 5 µg/dl is selected as the PRG that will be used to evaluate potential remedial alternatives in this FS.”



4. *Additional review of the resident exposure to benzo(a)pyrene is addressed in the text; however, the June 2020 memo is reference as the source and support document for the calculation of the PRG. The June memo was not revised to include this updated information, and the calculated PRG in this memo predates the FS by 1yr and is not based on current information as presented in the text. The calculated benzo(a)pyrene PRG for the resident child needs to be reviewed and updated based on the current document text. The benzo(a)pyrene PRG should be set at 10<sup>-6</sup>.*

**EA Response:** The benzo(a)pyrene PRG has been updated to a risk level of 10<sup>-6</sup>. Calculations for the benzo(a)pyrene PRG will be included in Appendix C.

5. *The FS continues to include a PRG for benzo(a)pyrene associated with the industrial worker. The risk assessment did not identify an excess cancer or noncancer risk associated with benzo(a)pyrene for the industrial worker, or for any other receptor, except as noted above.*

**EA Response:** The FS text has been revised to note that risk concerns associated with benzo(a)pyrene were only identified for the adult and child resident in the Lorraine Process Area. Any reference to potential risk concerns for the commercial/industrial worker have been removed from the text.

6. *Comments requested specific details related to the soil alternative be included in the description. Not all requested information was included.*

**EA Response:** Details regarding the soil alternatives have been added to the text.

7. *Revised FS submittal:*

- a. *Please provide the document parts individually as well as all together in one document to facilitate revisions based on any comments EPA receives after the close of this contract.*
- b. *Please ensure that the document as well as any attachments/appendices contain bookmarks for relevant sections.*
- c. *Please include word and or excel versions for ease of revision based on comments.*

**EA Response:** The documents will be sent accordingly.

8. *Waste Sample Laboratory Reports need to be included. Attachment to the Data Gap Report.*

**EA Response:** The Waste Sample Laboratory Reports have been included as an attachment with the Data Gap Technical Memorandum in Appendix B.

9. *Data Gap report Section 3.5,*

- a. *Paragraph 3: The benzo(a)pyrene concentration is indicated to be mg/kg, however, this would be inconsistent with concentrations seen at the site. Should this be micrograms and not milligrams?*

**EA Response:** Concentrations for soil are reported in mg/kg.



*b. Paragraph 4: the arsenic RSL is stated as 1.06 mg/kg. This screening value is incorrect.*

**EA Response:** The RSL for Residential Soil for Arsenic has been changed to the correct value of 0.68 mg/kg.

*10. Section 6: For each alternative please provide the following: estimated capital cost; estimated O&M cost; estimated present worth cost; estimated construction time; estimated time to meet RAOs.*

**EA Response:** The Cost Estimate Summary has been edited to include the information requested in this comment.

**Figures:**

*a.) Figure 1-1: missing*

*b.) Figure 2-1: This figure contains a comment. Additionally, move the North Tank Farm label so that the resident is visible.*

*c.) Figure 2-2:*

- Why are there 'X's over the wetland areas?*
- This figure contains comments.*
- Do not call the operational areas 'source areas'.*

*d.) Figure 2-3: center site on page.*

*e.) Figure 2-4: this does not include the entire site and does not show all areas addressed under the Source Control ROD. Why is the eastern portion of the east tank farm cut off? The residential area for Wilcox should not be included.*

*f.) Figure 2-5:*

- Remove the points >2 ft depth. Refer to comment in text.*
- This figure will show all exceedances for benzo(a)pyrene and lead above the residential PRGs of 0.12 mg/kg and 200 mg/kg, respectively.*

*g.) Figure 2-6:*

- Use this figure to show the potential placement of the repository/capped area.*

**EA Response:** The figures have been revised to address the comments.



**Tables:**

*a.) Table 4-1*

- *OAC252: 100-24 is listed as an ARAR: this needs to be removed as it is related to Grain, Feed, and Seed Operations of which none are associated with the site.*
- *OAC 252 chapter 515 needs to be included in the table. Refer to description of Alternatives 3 and 4.*

**EA Response:** OAC252: 100-24 has been removed from the table. The applicable references to the OAC chapter 515 have been included.

*b.) Table 5-1:*

- *Words in the cells are cut short. Requires formatting for all text to be visible.*
- *Revise for consistency with land use for Wilcox: ICs row.*

**EA Response:** The formatting has been addressed. The potential for industrial use in the south portion of the Wilcox Process Area has been mentioned in the Institutional Controls portion of the table.

*c.) Table 6-1: revise table for consistency with land use assumptions, RAOs and PRGs.*

**EA Response:** The RAOs and PRGs have been confirmed. The potential uses for land in the Wilcox Process Area have been revised to include industrial/commercial, with the possibility of residential.

*d.) Table 7-1 and Cost estimates*

- *S-3 and S-4: The text descriptions include ground water monitoring due to presence of consolidation area but costs are not included in the cost estimates. Include these costs.*
- *S-3 and S-4: S-4 includes load and haul but S-3 does not. These are essentially the same except for the bottom liner system of the constructed repository. Why is this included for one but not the other when all soils will be consolidated in the repository/capped area? The comments indicated that load and haul was deleted from S-3. Was it appropriate to delete it and was the comment correct when noting these appeared to be duplicative? If it was appropriate to delete for S-3 then it should have been deleted for S-4 as well. Please review these carefully to ensure that the proper elements are included.*

*It was appropriate to delete for both and has been corrected.*



- *All estimates need to have costs broken into capital, O&M, and then the present worth. Include the number of years estimated for O&M and that a 7% discount rate (or whatever the discount rate is) was used for calculating the present worth cost. Refer to section 6 of ROD guidance for further details. Please include this information as noted in the word document comments.*
- *Table 7-1, Criteria 3:*
  - *S-3: include the ground water monitoring.*
  - *S-3 and S-4 include 5-yr reviews.*

**EA Response:** Further details have been added to Table 7-1 and the cost estimate, including capital, O&M, and present worth costs, groundwater monitoring costs, and five-year review costs. The details of soil alternatives 3 and 4 have also been revised.

For the changes on the Remedial Action Objectives (RAOs) in Section 4.0, EA's understanding is that RAOs establish the goals based on the land use and what extent of environment and human health will be protected. Based on the RAOs, PRGs would be set and COCs would be identified by comparing the PRGs with the site COPC concentrations. Therefore, EA suggests not to include the list in the first paragraph in Section 4.1.

In addition, the revised RAOs do not include wording on protecting of groundwater and preventing contaminated soil from leaching to the groundwater. EA is not certain how this change would impact the path forward with addressing groundwater risks in the future by EPA. EA understands that the subsurface soil does not pose an unacceptable risk to human health but adding the goal for preventing contaminated soil from leaching to the groundwater in the RAOs would assist for the future groundwater work. It would also help for removal of subsurface soil that exceeds the PRGs in the COC concentrations, unless EPA believes there is not a need for that.

Sincerely,

A handwritten signature in black ink, appearing to read 'Pat Appel'.

Patrick Appel  
Project Manager